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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/648,027 Filing Date: August 26, 2003 Appellant(s): MCALLISTER ET AL.

> Mark B. Quatt For Appellant

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed March 20, 2008 appealing from the Office action mailed September 10, 2007.

Art Unit: 1794

#### (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

## (2) Related Appeals and Interferences

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

#### (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct

### (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

## (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct. Application/Control Number: 10/648,027 Page 3

Art Unit: 1794

## (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

## (8) Evidence Relied Upon

US 4,514,465	Schoenberg	4-1985
US 6,497,965	Longmoore et al.	12-2002
US 6,846,863	Plume	1-2005

Applicants own admission

#### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 7, 8, 10-15, 17-22, 26, and 27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Schoenberg (4,514,465) in view of Longmoore et al. (6.497,965) and Plume (6.846.863) and applicant's admissions.

The Specification of the instant application states that "amide waxes have been used for many years as slip agents in the production of films. Chemically, the waxes are primary, secondary, tertiary, or bis fatty amides, such as oleamide and erucamide." (page 1, lines 29-30). It is well known in the art that fatty acid amide materials migrate and that they are conventionally used in the art as slip agents. The applicants freely admit the materials migrate and bloom to the surface (page 1, lines 37+) to give the polymeric films slip properties. Producers of films also operate on a second principle that packaging applications typically require a film with a low coefficient of friction

Art Unit: 1794

(COF). This requirement is dictated by the need for the film to run property on packaging equipment used by food producers and other packagers (page 2, lines 5+). However, there are problems if "a significant amount of wax migrates to the surface" (page 2, lines 28+).

On the other hand, Schoenberg teaches five-layer polyethylene films having antiblocking particles on the surface layers and comprise amide slip agents. However, he is silent regarding the use of slip agents in the intermediate layers in a higher amount than the surface layers and Plume et al. teach that all sorts of lubricants can be use in polyethylene materials (column 2) including fatty acid amide. Additionally materials such as calcium stearate can be added as an anti acid component. All of these are considered to be conventional additives (column 2, lines 27+). Furthermore, Longmoore et al. also teach using fatty acid amides in the core layer of films. They state that "slip agent is frequently incorporated into the core layer of composite films, which are then heat treated to force it to migrate to the surface layers" (column 4, lines 37+).

It would have been obvious to one having ordinary skill in the art to have used higher levels of stearates and fatty acid amides in the intermediate layers of the films taught by Schoenberg in order to control the bloom of the slip agents to the surface of the films. It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the claimed additive combinations as each of the materials used by the applicant are conventional additives used in the production of plastic films. The use of the materials would improve the lubrication of the films and function as anti acid materials. The specific amount of fatty acid on the surface is a

Page 5

Application/Control Number: 10/648,027

Art Unit: 1794

result effective variable. There must be sufficient material to give desired slip properties but not so much that it interferes with the machinery or sealing properties.

While the applicants state that they have unexpected result for the claimed combination of materials, there is nothing on the record to show that this is the case. There is only one comparative example, and it provides no showing on this aspect of the invention. It is the examiner's position that applicants are using conventional additives. The applicants may have unexpected results for the combination of materials, but a strong showing would be needed to overcome the rejection. The applicants' showing is not commensurate in scope with the breath of their current claims. The applicants amended the claims to state that all the layers comprise primary fatty amidic acid and that outer layers comprise a fraction of the amount of material present in one of the first and second substrate layers. A discussed above, Longmoore et al. teach that the fatty acid materials may be added to interior layers. The current claimed invention would be arrived at in those instances where the fatty acid materials were added to the layers interior to the surface layers and then allowed to migrate (bloom). The concentration gradient would naturally follow the claimed values (15% -50% of the amount in the substrate layers) as the material would migrate from a high concentration in the originating layer toward the surface. Additionally, the specific amount (10 to 15 g/square inch) is directly related to how the film functions and the slip properties realized.

Page 6

Application/Control Number: 10/648,027

Art Unit: 1794

## (10) Response to Argument

Appellants traverse the rejection of claims 7, 8, 10-15, 17-22, 26, and 27 under 35 U.S.C. 103(a) as being unpatentable over Schoenberg (4,514,465) in view of Longmoore et al. (6.497.965) and Plume (6.846.863) and applicant's admissions and submit that films while it is true that Schoenberg is silent regarding the use of slip agents in the intermediate layers in a higher amount than the surface layers, Appellants believe that this statement unduly extends the teachings of Schoenberg. Appellants submit that these teachings are directed to the surface layers of Schoenberg's film and respectfully submit that a fair reading of Schoenberg does not support a conclusion that slip agents are present in the intermediate layers at all, much less in a higher amount than the surface layers of the multilayer film of Schoenberg. However, the Examiner disagrees. Column 17, line 24 to Column 18, line 21 of Schoenberg states that "Those skilled in the art will readily recognize that all of the by weight percentages disclosed herein are subject to slight variation. Additionally, these percentages may vary slightly as a result of the inclusion or application of additives to the surface layers ....well known antiblock agents may be utilized. A preferred slip agent is Erucamide (available from Humko Chemical under the tradename Kemamide E). Additional layers and/or minor amounts of various additives of the types described above may be added to the film structure of the present invention as desired but care must be taken not to adversely affect the desired physical properties and other characteristics of the inventive film" and clearly indicates that minor amounts of various

Art Unit: 1794

additives of the types described above may be added to **the film structure** thus indicating that slip agents may be used in other layers as well.

Appellants argue that Plume teaches a composition that can include fatty acid amides (column 2, line 12) and antacids (column 2, line-28) such as calcium or zinc stearate (column 3, line 5) but does not teach a multilayer film and that the calcium and zinc stearates are not taught as aids in controlling migration of a primary fatty acid amide, but simply as antacids. However, the Examiner would like to point out that there is no requirement in the claims that the stearates aid in controlling migration of a primary fatty acid amide. Furthermore, Plume is relied upon to show that all sorts of lubricants can be use in polyethylene materials (column 2) including fatty acid amide and additionally materials such as calcium stearate can be added. All of these are considered to be conventional additives (column 2, lines 27+).

Appellants further argue that Longmoore et al. teach away from the use of erucamide because of its volatility and the problem of plating on processing equipment, causing a clean-up problem (column 1, lines 32 to 37), and teach away from behenamide, in a surface layer intended for printing, because of its tendency to build up on the doctor blade of a rotogravure printing system (column 1, line 61 to column 2, line 9). Again, the Examiner disagrees with the Appellants interpretation of the reference. Longmoore et al. specifically teach using fatty acid amides in the core layer of films. They state that "slip agent is frequently incorporated into the core layer of composite films, which are then heat treated to force it to migrate to the surface layers" (column 4, lines 37+).

Art Unit: 1794

In summary, the Appellants state that none of the references shows the combination of transition metal salt of stearic acid, or ester of stearic acid with primary fatty amidic wax in a multilayer film and that none of the references teaches the use of transition metal salt of stearic acid, or ester of stearic acid to enhance the migration of amidic waxes.

In response, the Examiner maintains that it would have been obvious to one having ordinary skill in the art to have used higher levels of stearates and fatty acid amides in the intermediate layers of the films taught by Schoenberg in order to control the bloom of the slip agents to the surface of the films. It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the claimed additive combinations as each of the materials used by the applicant are conventional additives used in the production of plastic films. The use of the materials would improve the lubrication of the films and function as anti acid materials. The specific amount of fatty acid on the surface is a result effective variable. There must be sufficient material to give desired slip properties but not so much that it interferes with the machinery or sealing properties. Furthermore, the Examiner would like to point out that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The claimed arrangement is suggested by the prior art and the applicants

Art Unit: 1794

admit that fatty acid amides are typically used a slip agent and that they migrate. The prior art also recognizes that the materials may be placed in the interior of films and while the applicants have amended the claims to recite more specific concentrations of slip agents, it is the Examiner's position that this is clearly a result effective variable, and the gradient claimed would flow from the suggestions in the prior and the recognized migratory behavior of the additives.

Appellants further provide that the benefit of the combination of the claimed components in a single film is seen in Example 24 of Table 7. Appellants state that the result was that the first and second outer layers of the film of Example 24 each had an outside surface total amide coating of 14.3 micrograms/in<sup>2</sup>, compared with only 10.9 micrograms/in<sup>2</sup> for Example 23 and that the higher amide surface coating provides a polymeric film that exhibits adequate film surface properties characterized by a low coefficient of friction (COF) and high slip. Appellants further explain that Table 8 discloses Examples 25 and 26, that have outer layers comprising a primary fatty amidic wax in an amount of only 10% of the amount of primary fatty amidic wax in the respective substrate layers and Table 9 discloses Examples 29 to 32, all falling within the amended claim language of claim 7. However, the Examiner maintains that the Appellants showing is not commensurate in scope with the breath of their current claims. The claims recite that all the layers comprise primary fatty amidic acid and that outer layers comprise a fraction of the amount of material present in one of the first and second substrate layers. A discussed above, Longmoore et al. teach that the fatty acid materials may be added to interior layers. The current claimed invention would be

Art Unit: 1794

arrived at in those instances where the fatty acid materials were added to the layers interior to the surface layers and then allowed to migrate (bloom). The concentration gradient would naturally follow the claimed values (15% - 50% of the amount in the substrate layers) as the material would migrate from a high concentration in the originating layer toward the surface. Additionally, the specific amount (10 to 15 g/square inch) is directly related to how the film functions and the slip properties realized. It is unclear to the Examiner whether the above-described properties are unexpected and how they extend over the claimed range.

In conclusion, the Examiner would again like to point out that the Specification of the instant application states that "amide waxes have been used for many years as slip agents in the production of films. Chemically, the waxes are primary, secondary, tertiary, or bis fatty amides, such as oleamide and erucamide." (page 1, lines 29-30). It is well known in the art that fatty acid amide materials migrate and that they are conventionally used in the art as slip agents. The applicants freely admit the materials migrate and bloom to the surface (page 1, lines 37+) to give the polymeric films slip properties thus supporting the Examiner's position.

## (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer. Application/Control Number: 10/648,027 Page 11

Art Unit: 1794

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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